

## Summary

A case of massive pulmonary embolization and successful treatment under cardio-pulmonary bypass is presented. Patients presenting with the clinical picture of massive pulmonary embolization, shock and cyanosis, should be considered for emergency embolectomy following appropriate diagnostic studies. Establishing partial by-pass under local anesthesia before inducing general anesthesia is important to the success of pulmonary embolectomy.

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## REFERENCES

1. Beall, A. C., Al-Attar, A., Mani P. and Tuttle, L. D.: Resuscitation after acute massive pulmonary embolism, *J. Thorac. Cardio. Surg.*, 49:419, March 1965.
2. Beall, A. C., Cooley, D. A., and De Bakey M. E.: Surgical management of pulmonary embolism, *Dis. Chest*, 47:382, April 1965.
3. Blazek, J. V., Clark, R. L., and Herron C. S.: Cavo-graphy following plication of the inferior vena cava, *Am. J. Roentgen.*, 98:889, April 1966.
4. Breckenridge, R. T., and Ratnoff, O. D.: Pulmonary embolism and unexpected deaths in supposedly normal persons, *New Eng. J. Med.*, 270:298, 6 Feb. 1964.
5. Cooley, D. A., and Beall, A. C.: A technique of pulmonary embolectomy using temporary cardio-pulmonary bypass, *J. Cardio. Surg.*, 2:249, Nov. 1961.
6. Cooley, D. A., Beall, A. C., and Alexander, J. K.: Acute massive pulmonary embolism, surgical treatment using temporary cardio-pulmonary bypass, *JAMA*, 177:283, 5 Aug. 1961.
7. Coon, W. W., and Willis, P. W.: Deep venous thrombosis and pulmonary embolism, prediction, prevention and treatment, *Am. J. Cardiol.*, 4:611, Nov. 1959.
8. Cross, F. S., and Mowlem, A.: Pulmonary embolectomy utilizing cardio-pulmonary bypass, *Surg., Gynec., Obst.*, 17:71, July 1963.
9. Fred, H., Axelrad, M. A., Lewis, J. M., and Alexander, J. K.: Rapid resolution of pulmonary thromboemboli in man; An angiographic study, *JAMA*, 196:1137, 27 June 1966.
10. Hayne, T. P., Hendrick, C. K., and Schreiber, M.H. Diagnosis of pulmonary embolism and infarction by photoscanning, *J. Nucl. Med.*, 6:613, Sept. 1965.
11. Houk, V. N., Hufnagel, C. A., Mc Clenethan, J., and Moser, K. M.: Chronic thrombotic obstruction of major pulmonary arteries, *Am. J. Med.*, 35:269, Aug., 1963.
12. Kirschner, M.: Ein durch die Trendelenburgsche Operation geheilter fall von Embolie der art. Pulmonis, *Arch. Klin. Chir.*, 133:312, 1924.
13. McGuire, L. B., and Smith, G. W.: Pulmonary embolectomy, *New Eng. J. Med.*, 272:1170, 3 June 1965.
14. Sharp, E. H.: Pulmonary Embolectomy: Successful removal of a massive pulmonary embolus with support of cardio-pulmonary bypass, *Ann Surg.*, 156:1, 9 July 1962.
15. Sautter, R. D., Fletcher, F. W., and Emanuel, D. A.: Complete resolution of massive pulmonary thromboembolism, *JAMA*, 189:948, 21 Sept. 1964.

16. Steenburg, R. W., Warren, R., Wilson, R. E., and Rudolph, L. E.: New look at pulmonary embolectomy, *Surg., Gynec., Obst.*, 107:214, Aug. 1958.

17. Stein, P. D., O'Connor, J. F., Dalen, J. E., Pur-Shahriari, A. A., Hopkin, F. G., Hammond, D. T., Haynes, F. W., Fleischner, F. G., and Dexter, L.: The angiographic diagnosis of acute pulmonary embolism: Evaluation of criteria, *Am. Heart J.*, 73:730, June 1967.

18. Trendelenburg, F.: Translated in *Ann. Surg.*, 48, 772, 1908.

19. Weiner, S. N., Edelstein, J., and Charms, B. L.: Observations on pulmonary embolism and the pulmonary angiogram, *Am. J. Roentgen.*, 98:859, April 1966.

## "Red Eye" as the Presenting Sign of Syphilis d'Emblée

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IN RARE CASES the manifestations of syphilis still challenge the physician's diagnostic skill. Following is a case in which the disease occurred without chancre (syphilis d'emblée) and the initial complaint was referable to the eye. Minimal signs of secondary syphilis, not noticed by the patient, aided in establishing the diagnosis.

## Report of a Case

A 25-year-old man sought help from the emergency service of the University of California Medical Center, San Francisco, on 5 August 1964 because of acute "red eye" associated with aching and photophobia for two days. Ocular examination showed chemosis, miosis, conjunctivitis and vascular engorgement of the ciliary vessels of the left eye. Both pupils reacted to light and convergence was normal. The use of compresses and instillation of an ophthalmic solution of sulfisoxazole (Gantrisin®) were prescribed. The patient was referred to the Eye Clinic, where slit-lamp examination showed fine white granular keratinous precipitates, 3+ flare, 3+ cells, and annular posterior synechiae. No inflammation of the choroid or retina was present. The patient was instructed to use ophthalmic solutions of cyclopentolate (Cy-

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clogyl®), phenylephrine (Neosynephrine®) and dexamethasone (Decadron®).

Because of headache, cough, drenching night sweats, intermittent diarrhea and loss of a few pounds of weight, the patient was referred to the Medical Clinic six weeks later. He denied having had gonorrhea or genital lesions, and he had not received antibiotics for many months. A routine serologic test for syphilis in May 1964 (when he was discharged from the Armed Services) had been nonreactive.

On physical examination, the temperature, blood pressure and pulse rate were within normal limits. A few ham-colored papules were noted on the trunk, scalp and extremities. The oral mucous membranes and perianal skin appeared normal. The left testicle was tender on palpation. A soft, nontender jugulodigastric lymph node, 2 cm in diameter, was palpable. The urethra was not indurated.

The packed red cell volume of the blood was

42 per cent. The leukocyte count was 7,050 per cu mm, with a normal differential. The urine was normal. Tuberculin (purified protein derivative) and fungal skin tests and a toxoplasma test gave negative results. A roentgenogram of the chest showed linear densities in the apex of the left lung. Darkfield examination of serum from two cutaneous lesions was negative for *Treponema pallidum*. Biopsy of a cutaneous lesion showed a dense inflammatory infiltrate, containing numerous plasma cells (Figure 1). On 11 September, a Venereal Disease Research Laboratory (VDRL) slide test for syphilis was reactive at a dilution of 1:64. On 21 September, a second VDRL slide test was reactive at a dilution of 1:256, and a diagnosis of secondary syphilis was made. Epidemiologic investigation of sexual contacts was provided by the local Public Health Service facilities.

The patient was treated with 6 million units of penicillin in divided doses over a 15-day period. Chills, fever, malaise and headache developed a few hours after the initial injection but not after subsequent injections. During the next 18 months serologic tests showed a progressive decrease in titer, and the ocular lesions slowly resolved. No further treatment was required after September 1965. A serologic test in April 1966 gave a negative reaction.

## Discussion

Of 3,244 patients with early syphilis studied by a cooperative clinical group, 90 had ocular complications, which in 73.3 per cent of cases consisted of iritis or uveitis.<sup>1</sup> In their encyclopedic treatise on the disease in 1944, Stokes, Beerman and Ingraham<sup>2</sup> stated that syphilis is the causative factor in 30 to 40 per cent of cases of uveitis, that uveitis rarely occurs before the sixth month of infection, and that it is more common in relapsing or recurrent forms of syphilis. The advent of specific therapy for this infection in the quarter century since these statements were made apparently has aided in preventing the occurrence of such ocular complications. In a recent survey of 432 cases of uveitis, only 4.6 per cent were attributed to syphilis.<sup>3</sup>

Acquired syphilis without chancre is uncommon. Traumatic or needle-prick inoculation is rare, and in most cases the primary lesions are minor or inapparent or occur in hidden sites. Because saphrophytic spirochetes resembling *T. pallidum* are pres-

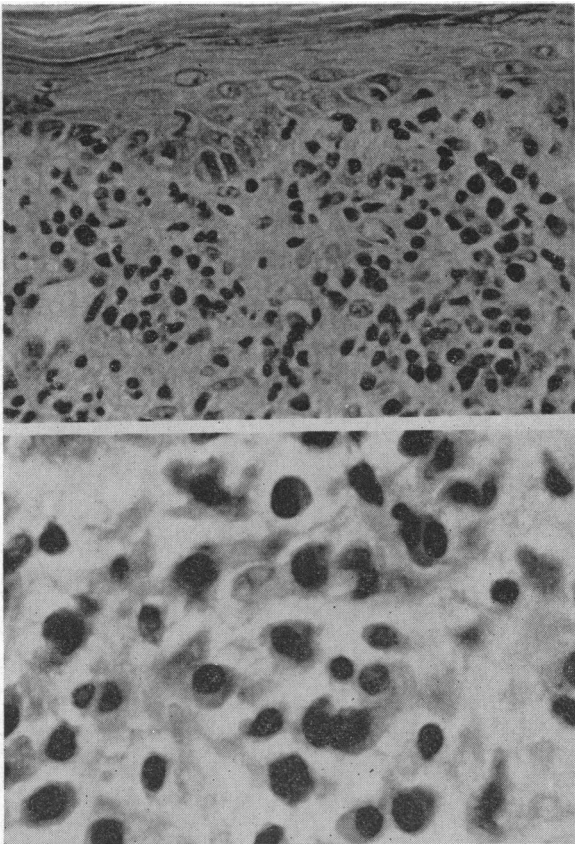


Figure 1.—A. Biopsy specimen of cutaneous lesion, showing dense inflammatory infiltrate composed of mononuclear cells and some histiocytes throughout the dermis. (Hematoxylin and eosin,  $\times 400$ .) B. Same section at higher magnification, showing predominance of plasma cells in the inflammatory infiltrate,  $\times 1,000$ .

ent normally in the oral and rectal mucosa, darkfield examination is usually unreliable in screening suspicious lesions in these areas. In such cases the presence of enlarged painless cervical or inguinal lymph nodes may be the only evidence of inoculation.

The patient described in this report had syphilis of less than three months' duration, which occurred with inapparent or no primary lesions. The occurrence of "red eye" due to uveitis as the initial manifestation of the disease is as unusual today as it must have been in the time of the classic syphilographers.

#### GENERIC AND TRADE NAMES OF DRUGS

Sulfisoxazole—*Gantrisin*.®  
Cyclopentolate—*Cyclogyl*.®  
Phenylephrine—*Neosynephrine*.®  
Dexamethasone—*Decadron*.®

#### REFERENCES

1. Stokes, J. H., Cole, H. N., Moore, J. E., O'Leary, P. A., Wile, U. J., Clark, T., Parran, T., Jr., and Usilton, L. J.: Cooperative clinical studies in the treatment of syphilis: Early syphilis, U.S.P.H.S. Venereal Disease Information, 13:165-182, 1932.
2. Stokes, J. H., Beerman, H., and Ingraham, N. R.: The diagnosis of early syphilis—the secondary stage, in *Modern Clinical Syphilology*, Third edition, W. B. Saunders Company, Philadelphia, 1944, pp. 604-605.
3. Woods, A. C., and Abrahams, I. W.: Uveitis survey, *Am. J. Ophthalmol.*, 51:761-780, 1961.

